Exploring the Eligible Course Contents from MOOCs for Librarian Professional Development

Cherdchan Ratchaburana
Head of Research Information Resources (RIR) Unit, Faculty of Science, Mahidol University, Rama VI Road, Bangkok 10440, Thailand. E-mail: cherdchan.rat@mahidol.ac.th

ABSTRACT

A massive open online course (MOOC) is an online system for delivering high-quality learning contents to any person who wants to take free courses from world-class universities. By enrolling eligible courses from MOOCs, librarians will have new opportunities to improve their knowledge and skills and to gain lifelong learning without any limitation on attendance.

This study was to explore 4 websites of the world’s most popular MOOCs e.g Coursera, edX, Udacity and FutureLearn during September-October 2014. Content analysis approach was used to analyse all course descriptions and syllabi from those 4 MOOCs and to find the eligible courses for librarian professional development.

The study found that there were altogether 861 courses in Coursera, 336 courses in edX, 48 courses in Udacity, and 98 courses in FutureLearn. There were 3 courses directly related to professional knowledge for the librarians i.e. “Copyright for Educators & Librarians” from Coursera, “Metadata: Organizing and Discovering Information” from Coursera and “Library Advocacy Unshushed” from edX. Udacity and FutureLearn did not provide any library science courses at all. There were 14 courses related to information technology and educational technology skills suitable for librarians and the other 28 courses related to librarians’ generic skills improvement e.g. effective communication skills, e-learning and digital cultures, etc.

These findings suggest that librarians should use MOOCs as a new learning and professional development tool because most of MOOCs courses are free and available to learn anywhere anytime. However, library and information science (LIS) core courses in MOOCs are not sufficient enough and still need the sustainable development in the future.

Keywords: MOOCs, Librarians Professional Development

INTRODUCTION

Rapid technological advances have resulted in an exponential increase in the amount of available information and forced librarians to change their practices. The increasing popularity of learning management systems, new ways of communicating research and the transformation in scientific publishing have also posed new challenges for librarians (Vassilakaki & Moniarou-Papconstantinou, 2015, p.37). Thus professional development is an important manifestation of the academic librarian's commitment to personal excellence. It
is a necessary response to a rapidly changing environment. Although professional development is an individual responsibility, it thrives on partnership with the associations and the institutions that share common goals and values with academic librarians. (ARCL, 2000)

MOOCs are available to be used as open learning resources and an emerging educational format/phenomenon arising from the exploration of teaching and learning in an always-on, globally interconnected environment. They offer librarians a no-cost opportunity to learn through immersive, hands-on experience with emerging technologies, as well as the chance to explore topics related to the impact of emerging technologies on education (Bond, 2013).

This paper focuses on selection of eligible courses from MOOCs which relate and enable knowledge and skills improvement of librarians and gain lifelong learning without any limitation on attendance.

What is MOOC?

MOOC or the massive open online course is a model for delivering learning content online to virtually any person with no limit on attendance who wants to take the course (EDUCASE, 2011). It is a model of educational delivery that is, to varying degrees, massive, with theoretically no limit to enrollment; open, allowing anyone to participate, usually at no cost; online, with learning activities typically taking place over the web; and a course, structured around a set of learning goals in a defined area of study (EDUCASE, 2013).

Furthermore, involvement has other benefits. Participation in MOOC is as exercise in learning, collaborating, and creating in an online environment. For some, it can be a practical, hands-on introduction to working with Web 2.0 tools (Bond, 2013). A MOOC is not the online version of a face-to-face class. It is not a collection of recorded classroom lectures and lecture notes. It is a “born digital” class. Video lectures are the core of MOOCs. MOOC providers leverage technologies to create a rich learning environment by incorporating at least one and often most of the following elements: professor speaking directly to the camera while accompanied by PowerPoint slides, notes, or animated illustrations on digital whiteboards; in-video quizzes; additional video clips that are not part of the professor talk; and video interviews of guest speakers. (Wu, 2013)

The word MOOC was first introduced in 2008 by George Siemens and Stephen Downes to describe their course, called “Connectivism and Connective Knowledge” presented to 25 tuition-paying students at the University of Manitoba and offered online to general public 2,300 students at no cost. According to the New York Times, 2012 became “the Year of the MOOC” as several well-established MOOC providers emerged, including Coursera, Udacity, and edX (Pappano, 2012).

The Observatory on Borderless Higher Education (OBHE) found that there were two classes of MOOC exist side by side for the time being, in a distinction observed by all participants and commentators: the cMOOC and the xMOOC.

cMOOCs (C for “connectivist”, the educational theory that inspired them) run on open source learning platforms and are led by academics as part of their university activity. Their pedagogical model is peer learning.

xMOOCs are online versions of traditional learning formats (lecture, instruction, discussion etc.) on proprietary specialist software platforms owned by private enterprises. They feature contractual and commercial relationships between Universities who create content, and technology providers. These are associated mostly with the three largest platform providers edX, Udacity and Coursera. The UK’s FutureLearn, scheduled to launch autumn 2013, will be in this group (OBHE, 2013).
What is Coursera?
Coursera is a for-profit educational technology company founded by Andrew Ng and Daphane Koller, computer science professors from Stanford University. Coursera works with universities to make some of their courses available online, and offers courses in physics, engineering, humanities, medicine, biology, social sciences, mathematics, business, computer science, and other subjects. As of October 2014, Coursera has 10 million users in 839 courses from 114 institutions. (Coursera, 2014)

What is edX?
edX is a non-profit online initiative created by founding partners Harvard and MIT. It offers interactive online classes and MOOCs from the world’s best universities, colleges and organizations. Online courses from MITx, HarvardX, BerkeleyX, UTx and many other universities. Topics include biology, business, chemistry, computer science, economics, finance, electronics, engineering, food and nutrition, history, humanities, law, literature, math, medicine, music, philosophy, physics, science, statistics and more. (edX, 2014)

What is Udacity?
Udacity was born out of a Stanford University experiment in which Sebastian Thrun and Peter Norvig offered their "Introduction to Artificial Intelligence" course online to anyone, for free. Over 160,000 students in more than 190 countries enrolled and not much later, Udacity was born. Now Udacity is growing the team of educators and engineers on a mission to change the future of education by bridging the gap between real-world skills, relevant education, and employment. (Udacity, 2014)

What is FutureLearn?
FutureLearn is a private company founded in December 2012 wholly owned by The Open University, England. It is the first UK-led massive open online course learning platform, included 40 partners from the UK, Europe, Africa, Asia and the Middle East. These include many of the best UK and international universities, as well as institutions with a huge archive of cultural and educational material, such as the British Council, the British Library, the British Museum, and the National Film and Television School. FutureLearn also works with a range of internationally renowned organizations - from professional bodies such as the Association of Chartered Certified Accountants (ACCA) and Institution of Engineering and Technology (IET), to businesses like the BBC and Marks & Spencer, to the UK Government. FutureLearn launched the first courses in September 2013 and less than a year later, it passed 1 million course signups and the 500,000th learner joined the site. (FutureLearn, 2014)

Librarian Professional Development
To upgrade and improve librarians’ skill and knowledge. Self development is to improve work productivity, management skills, and personal development or well-being. According to the Australian Library and Information Association (ALIA), there are 7 core knowledge, skills and attributes related to the Library and Information Sector (ALIA, 2014) as follows:
1. Knowledge of the broad context of the information environment
2. Information seeking
3. Information organisation and access
4. Information services, sources and products
5. Information Management
6. Generation of knowledge
7. Employability skills and attributes
Besides, the Special Libraries Association (SLA) declared 4 competencies for the information professionals of the 21st Century (SLA, 2003) as follows:

1. Managing Information Organizations
2. Managing Information Resources
3. Managing Information Services
4. Applying Information Tools and Technologies

SURVEY METHODS

Four websites of the world’s most popular MOOCs e.g. Coursera, edX, Udacity and FutureLearn were explored during September-October 2014. Content analysis approach was used to analyse all course descriptions and syllabi from those 4 MOOCs and to find the eligible courses which correlated with 7 core knowledge, skills and attributes declared by the Australian Library and Information Association (ALIA) and 4 competencies for the information professionals of the 21st Century declared by the Special Libraries Association (SLA).

The eligible courses were complied by searching and browsing through the whole course components (i.e. course title, language, categories, description, course syllabus, and instructors). Then, web contents were examined again in detail to see the relevance of these courses to the librarians’ skill and knowledge which was divided into 3 concepts:

1) Professional knowledge for the librarians: courses retrieved by searching with related keywords e.g. library, librarian, librarianship, information, information science, librarian skill, library service etc. and browsing through related categories e.g. Library and Information Science, Education, Humanities, Arts, Information Technology & Design, Social Sciences, Statistics and Data Analysis, Teacher Professional Development.

2) Information technology and educational technology skills: courses retrieved by searching with related keywords e.g. IT, ICT, computer, computer science, website, e-learning etc. and browsed through related categories e.g. Computer Science, Information Technology.

3) Librarians’ generic skills improvement: courses retrieved by searching with related keywords e.g. English, language, critical thinking, writing skill, reading skill etc. and browsed through related categories e.g. Business & Management, Economics & Finance.

FINDINGS

The study found that there were altogether 861 courses in Coursera, 336 courses in edX, 48 courses in Udacity, and 98 courses in FutureLearn. There were only 3 courses directly related to professional knowledge for the librarians i.e. “Copyright for Educators & Librarians” from Coursera, “Metadata: Organizing and Discovering Information” from Coursera and “Library Advocacy Unshushed” from edX. Udacity and FutureLearn did not provide any library science courses at all.

There were 14 courses related to information technology and educational technology skills suitable for librarians and the other 28 courses related to librarians’ generic skills improvement e.g. effective communication skills, e-learning and digital cultures, etc. (Table 1).
Table 1 Number of courses related to Librarians Professional Development

<table>
<thead>
<tr>
<th>Course concept</th>
<th>Coursera</th>
<th>edX</th>
<th>Udacity</th>
<th>FutureLearn</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional knowledge for the librarians</td>
<td>2</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>3</td>
</tr>
<tr>
<td>Information technology and educational technology skills</td>
<td>7</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>Librarian’s generic skills improvement</td>
<td>9</td>
<td>10</td>
<td>2</td>
<td>7</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>18</td>
<td>14</td>
<td>5</td>
<td>8</td>
<td>45</td>
</tr>
</tbody>
</table>

MOOC courses directly related to professional knowledge for the librarians

1. Copyright for Educators & Librarians (from Coursera): This course is about a framework for thinking about copyright, authorship and rights, specific exceptions for teachers and librarians, understanding and using fair use. The course is taught by Kevin Smith (the director of the Office of Copyright and Scholarly Communications, Duke University Libraries), Lisa A. Macklin (the director of Scholarly Communications Office Robert W. Woodruff Library, Emory University), and Anne Gilliland (the scholarly communications officer, the University of North Carolina at Chapel Hill University Libraries).

2. Metadata: Organizing and Discovering Information (from Coursera): This course approaches metadata from the perspective of information science, which is a broad interdisciplinary field that studies how people create and manage information. It is about metadata for web, organizing information, Dublin Core, how to build a metadata schema, how to create and evaluate metadata. The instructor of this course is Jeffrey Pomerantz, Associate Professor and the Director of Undergraduate Studies in the School of Information and Library Science at the University of North Carolina at Chapel Hill.

3. Library Advocacy Unshushed (from edX): This course is about values and transformative impacts of libraries and librarianship, research on current perceptions of libraries and librarians, role of relationships in advocacy, principles of influence and their impact on advocacy, strategic thinking and planning in advocacy, Effective communication: messages, messengers, and timing. The instructor team led by Wendy Newman, Senior Fellow and Lecturer, Faculty of Information, University of Toronto, Canada.

MOOC courses related to information technology and educational technology skills suitable for librarians

1. Information Theory (from Coursera)
2. e-Learning Ecologies (from Coursera)
3. E-learning and Digital Cultures (from Coursera)
4. Internet History, Technology, and Security (from Coursera)
5. Technology and Ethics (from Coursera)
6. Understanding Media by Understanding Google (from Coursera)
7. Text Retrieval and Search Engines (from Coursera)
8. Data, Analytics and Learning (from edX)
9. Design and Development of Educational Technology (from edX)
10. Introduction to Computer Science (from edX)
11. Intro to HTML and CSS (from Udacity)
12. Web Development (from Udacity)
CONCLUSION AND DISCUSSION

There are 45 courses from 4 MOOC providers, i.e. 18 courses from Coursera, 14 courses from edX, 5 courses from Udacity, and 8 courses from FutureLearn. There are only 3 courses directly related with professional knowledge for the librarians, the other 14 courses related with information technology and educational technology skills, and the other 28 courses related with librarian’s generic skills improvement.

These findings suggest that librarians can take advantage of MOOCs and should use them as a new learning and professional development tool because most of MOOCs courses are free and available to learn anywhere anytime. Library and information science (LIS) core courses in MOOCs are quite few and most of the MOOC courses emphasize in computer science and IT. However, the next-generation librarians should keep following up MOOCs and attend their eligible courses, especially the new emerging IT trend, such as “Data Science”, to improve our profession development.
REFERENCES


